Memphis Depot

Dunn Field Disposal Sites RD

Presented by:
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Public Briefing
January 20, 2005

U.S. Army Engineering and Support Center, Huntsville

CH2MHILL

Project Background

- Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Process

Remedial Investigation (RI)
Feasibility Study (FS)
Proposed Plan (PP)
Record of Decision (ROD)
Remedial Design (RD) *
Remedial Action (RA)

} Key decision-making stages have been completed

* RD process for Dunn Field divided into three phases: Disposal Sites, Source Areas, Offsite Groundwater

Project Background

- **Final Dunn Field ROD**
  - April 2004
  - Defines cleanup goals and the remedies to meet them
- **Remedies approved for soil and groundwater:**
  - **Disposal Sites:** Excavation, Transportation, and Offsite Disposal (ET&D)

RDs in 2006

  - **Source Areas:** Soil Vapor Extraction (SVE), Zero-Valent Iron injection (ZVI), Land Use Controls
  - **Offsite Groundwater:** Permeable Reactive Barrier (PRB) and Monitored Natural Attenuation (MNA)

Project Background

- Dunn Field Disposal Sites Remedial Design (RD)
  - Completed May 2004
- Public Briefing required prior to start of Remedial Action
  - Proposed schedule
  - Potential impacts (noise, traffic disruptions, health and safety requirements, etc.) associated with construction and/or remedial action activities

Disposal Sites RD Objectives

- Prevent direct contact with buried waste during site redevelopment
- Prevent groundwater impacts from buried waste
- Restore site to allow light industrial re-use

Remedy Selection

- **Selection rationale**
  - Expediency, permanency, and moderate cost
  - Permanent risk reduction through removal (compared to containment)
- **Some compounds will remain onsite**
  - Consistent with re-use plan for light industrial
  - Remedial action will be reviewed on a 5-year basis to ensure protectiveness

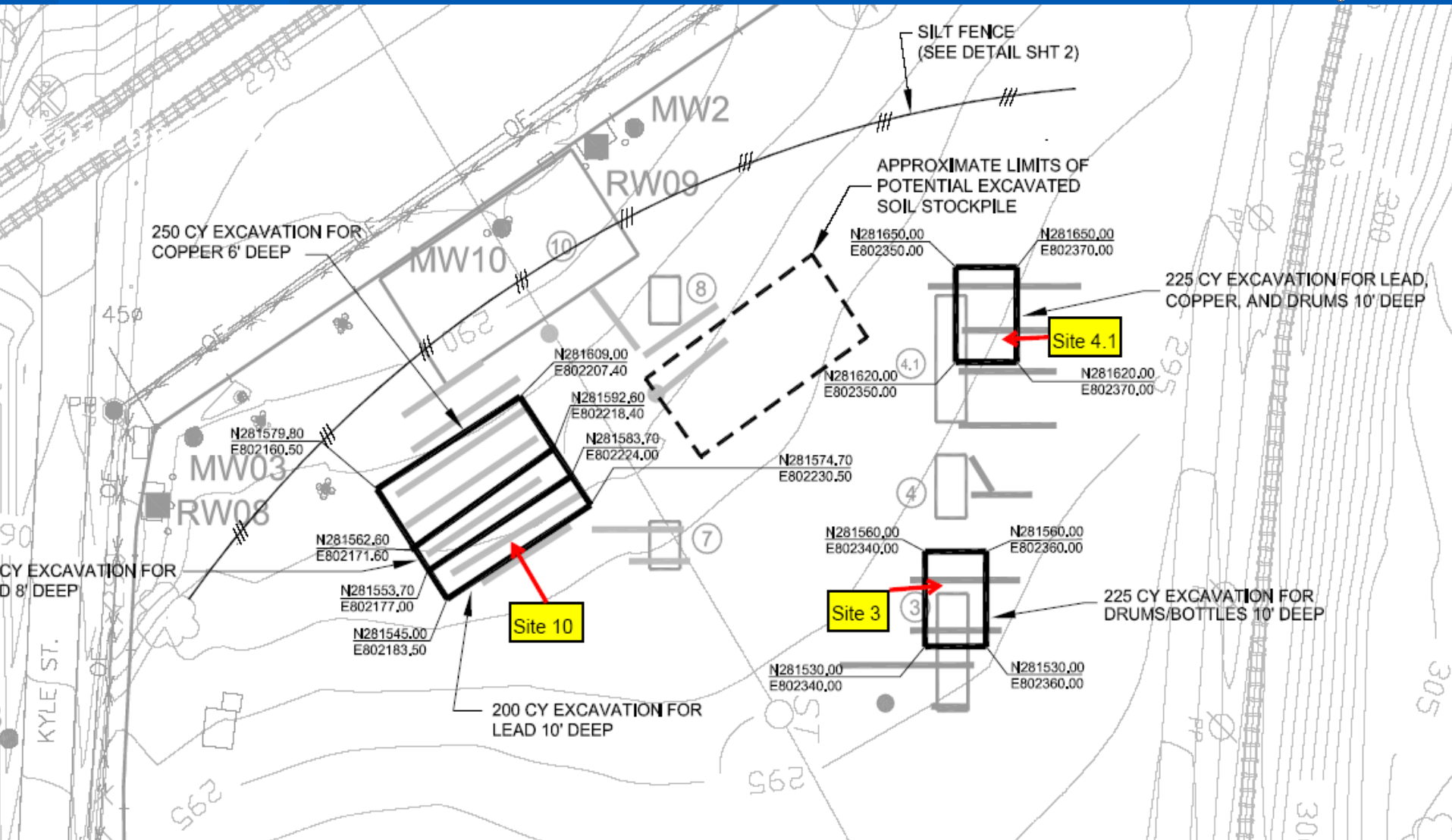
Pre-design Investigation

- **Pre-design investigation**
  - September through December 2003
  - Geophysical survey to identify location and extent of 17 disposal sites
  - 48 exploratory trenches and 17 test pits
  - Samples were collected to characterize buried soil and debris
    - Analyzed for broad spectrum of compounds
    - Environmental Protection Agency's Total Analyte List (TAL) and Target Compound List (TCL)
  - Results included in RD

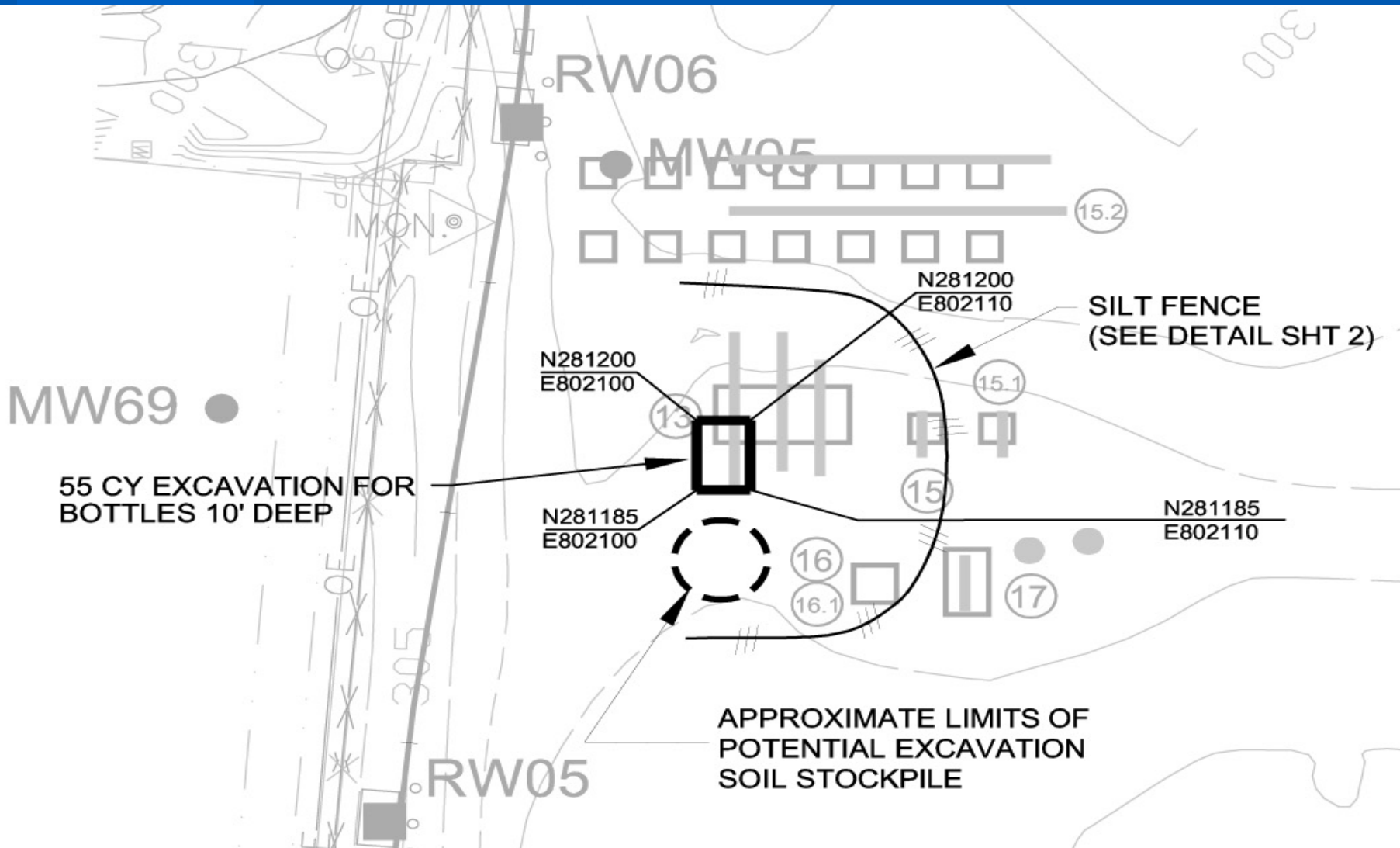
Disposal Sites RD Rationale

- Soil and debris will be excavated and transported for offsite disposal from:
  - Sites 3, 4.1, 10, 13, and 31
  - Identification of key compounds
    - Benzene, copper, lead, and polycyclic aromatic hydrocarbons (PAHs) such as tar, diesel fuel and other petroleum compounds
    - Buried containers (drums)
- Rationale for excavation based on remedial goals in ROD
  - Concentration of compounds above guidelines for industrial reuse
  - Concentration of compounds below guidelines, but composition of debris unknown (i.e. contents of buried drums unknown)

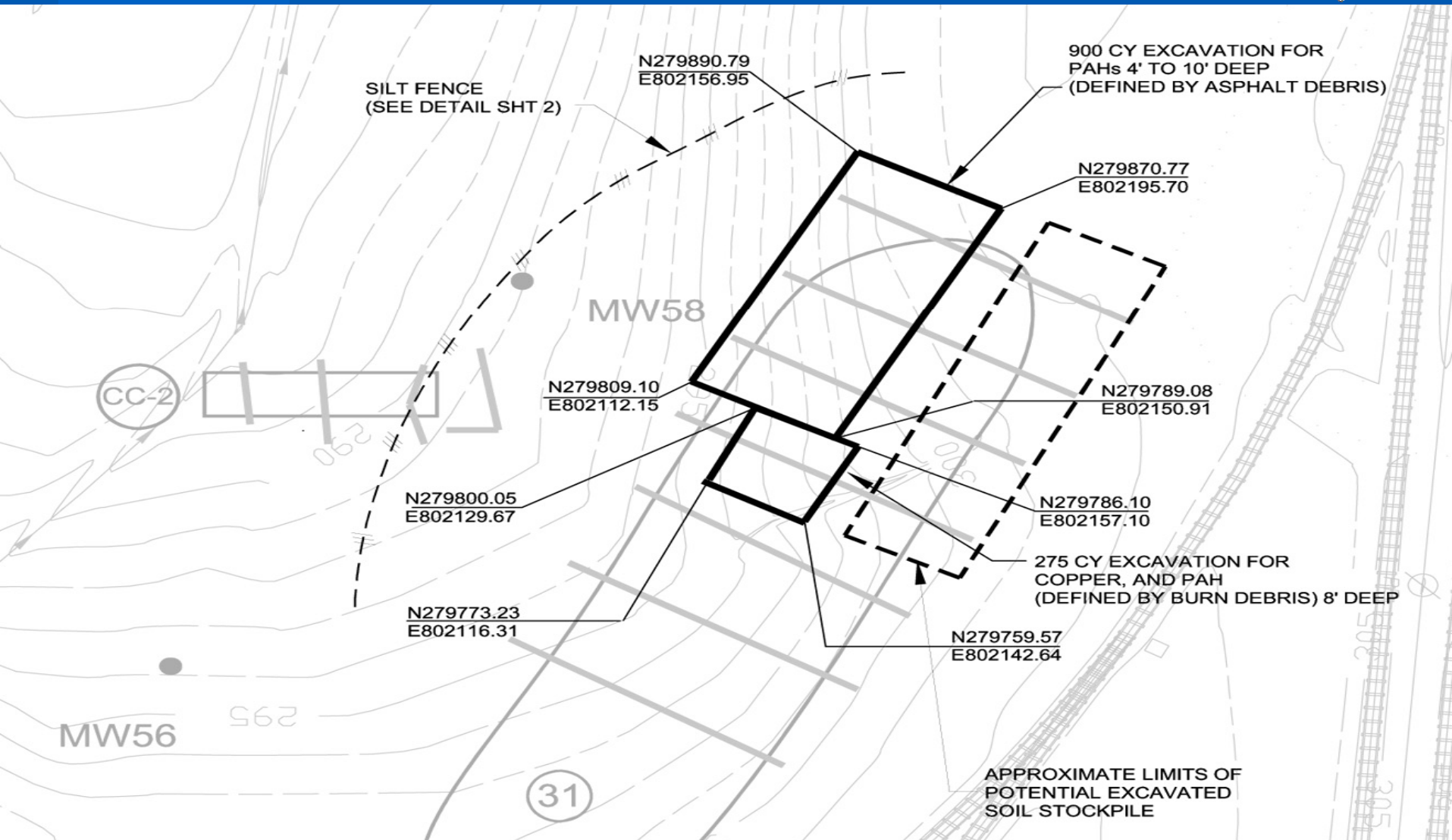
Disposal Sites 3, 4.1, and 10



Disposal Site 13



Disposal Site 31



Excavation Requirements

- **To excavate 2,290 cubic yards of soil and debris containing:**
  - **Asphalt**
  - **PAHs**
    - Tar, diesel fuel and other petroleum compounds
  - **Glass bottles and drums**
    - Acids and pesticides
    - Benzene, copper, lead

Remedial Action Implementation

Beginning Winter 2005

- Mobilization of equipment to Dunn Field and equipment set-up
- Excavation, transportation, and offsite disposal of soil/debris in CERCLA-approved facility
- Performance verification sampling at excavation limits within each area

Remedial Action Implementation

- **Safety plan**
  - Air monitoring
  - Dust control measures
  - Personal protective equipment for workers
  - Cleaning protocol for equipment
- **Site restoration**
  - Backfilling, compaction, grading, landscaping
  - Site demobilization scheduled for Spring 2005
- **Implementation and monitoring of land use controls**
  - Part of overall remedy
  - Land use controls reviewed annually
  - Site subject to Five-Year Review

Next Steps

- Main Installation Remedial Design
  - Completed August 2004
  - Public Briefing postponed from October 2004 now scheduled for Spring/Summer 2005
- Source Areas and Offsite Groundwater Remedial Designs
  - Spring 2006

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